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[Continued on next page]

(54) Title: ISOLATION OF A HUMAN RETROVIRUS

Case 6/Chimp Sequence Analysis (% identity)

Integrase (425 bp)					
	<u>B1</u>	<u>A055</u>	<u>A101</u>	<u>A136</u>	<u>A182</u>
Case 6	100.0	92.7	93.6	92.5	93.4
B1	-	92.7	93.6	92.5	93.4
A055	-	-	98.1	97.9	98.4
A101	-	-	-	97.9	98.4
A136	-	-	-	-	98.4
A182	-	-	-	-	-

gag (610 bp)					
	<u>B1</u>	<u>A055</u>	<u>A101</u>	<u>A136</u>	<u>A182</u>
Case 6	100.0	84.7	84.7	84.4	84.7
B1	-	84.7	84.7	84.4	84.7
A055	-	-	98.1	96.7	97.5
A101	-	-	-	96.7	96.9
A136	-	-	-	-	98.9
A182	-	-	-	-	-

ORF-2 (240 bp)					
	<u>B1</u>	<u>A055</u>	<u>A101</u>	<u>A136</u>	<u>A182</u>
Case 6	94.1	82.4	82.0	82.0	82.9
B1	-	83.3	83.8	83.8	84.2
A055	-	-	97.1	97.1	96.7
A101	-	-	-	96.3	96.7
A136	-	-	-	-	98.0
A182	-	-	-	-	-

(57) Abstract: The present invention comprises compositions and methods comprising a spumavirus isolated from a human. More specifically, the spumavirus of the present invention was isolated from a human who had exposure to nonhuman primates. Importantly, the methods and compositions of the present invention comprising the spumavirus and including antibodies to the spumavirus, can be used to detect the presence of spumavirus or antibodies in body fluids, for pathogenicity studies of related viruses, and as a vector for gene therapies. The present invention can also be used for treatment of conditions in humans due to the presence of rapidly dividing cells and for recombinant live virus vaccination.

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